

## CLAIMS

1. A jig for calcining an electronic component comprising a  
5 substrate and a zirconia surface layer formed on the substrate  
and having an arithmetic average roughness "Ra" from 5 to 40  $\mu$  m, or a ten-point average roughness "Rz" from 30 to 130  $\mu$  m, or a  
maximum height "Ry" from 40 to 200  $\mu$  m characterized in that a  
skewness (deflection) "Rsk" of the zirconia surface layer is from  
10 -0.5 to 0.5.
2. A jig for calcining an electronic component comprising a  
substrate, an intermediate layer formed on the substrate and a  
zirconia surface layer formed on the intermediate layer and  
15 having an arithmetic average roughness "Ra" from 5 to 40  $\mu$  m, or  
a ten-point average roughness "Rz" from 30 to 130  $\mu$  m, or a  
maximum height "Ry" from 40 to 200  $\mu$  m, characterized in that a  
skewness (deflection) "Rsk" of the zirconia surface layer is from  
-0.5 to 0.5.
- 20 3. The jig for calcining the electronic component as claimed  
in claim 1 or 2, wherein the zirconia surface layer includes from  
50 to 75 % in weight of coarse particle aggregate having from 80  
to 300 mesh and 50 to 25 % in weight of fine particle bond phase  
25 having an average particle size from 0.1 to 10  $\mu$  m.

characterized in that a wear resistance in a reciprocating wear test conducted in accordance with JIS-H8503 is from 10 to 200 (DS/mg).

5 12. The jig for calcining the electronic component as claimed in claim 10 or 11, wherein the zirconia surface layer includes from 50 to 75 % in weight of coarse particle aggregate having from 80 to 300 mesh and 50 to 25 % in weight of fine particle  
10 bond phase having an average particle size from 0.1 to 10  $\mu$  m bonded with each other by a sintering aid made of two or more metal oxides for increasing the wear resistance.

13. A jig for calcining an electronic component comprising a substrate and a zirconia surface layer formed on the substrate,  
15 characterized in that a thermal shock resistance  $\Delta T$  ( $=T_1-T_2$ ) is 400°C or more expressed as a temperature difference of rapid cooling which generates strength reduction in a rapid cooling bending test where the jig for calcining the electronic component is rapidly cooled from specified temperature  $T_1$  to  $T_2$ .

20

14. A jig for calcining an electronic component comprising a substrate, an intermediate layer formed on the substrate and a zirconia layer formed on the intermediate layer, characterized in that a thermal shock resistance  $\Delta T$  is 400°C or more.

25

15. The jig for calcining the electronic component as claimed in claim 13, wherein a thickness of the zirconia layer formed on the substrate is  $500\mu\text{m}$  or less, and a relative density of the zirconia surface layer is between 40 % and 80% both inclusive.

5

16. The jig for calcining the electronic component as claimed in claim 14, wherein a total thickness of the zirconia layer formed on the alumina intermediate layer (alumina intermediate layer + zirconia layer) is  $500\mu\text{m}$  or less; a relative density of the zirconia  
10 layer is between 40 % and 80% both inclusive; and a relative density of the alumina intermediate layer is between 60 % and 90% both inclusive.

17. The jig for calcining the electronic component as claimed  
15 in claim 13 or 14, wherein metal oxides are used as a sintering aid for calcining the zirconia layer coated on the substrate surface, alumina intermediate layer coated on the substrate surface, and the zirconia layer coated on the alumina intermediate layer.

20